



Agenda Item 5: Operational implementation of new ATM automated systems and integration of the existing systems

FOLLOW-UP TO THE IMPLEMENTATION OF ACTIVITIES RELATED TO AIDC INTERCONNECTION BETWEEN ADJACENT ACCs

(Presented by the Secretariat)

SUMMARY

This working paper presents information on the progress made since SAM/IG/18 meeting to date, in the operation of the AIDC between adjacent ACCs and the short-term working plan to complete the AIDC interconnections at regional and interregional level.

REFERENCES:

- Third meeting on AIDC implementation (Lima, Peru, 24-26 April 2017)
- Eighteenth SAM workshop/implementation meeting (SAM/IG/18 Lima, Peru, 17-21 October 2016)
- SAT/21 Meeting (Lisbon, Portugal, 6-10 June 2016)
- Summary of the teleconference AIDC (2 December, 2016 (AFI/SAM), 2 March, 2017 (SAM) and 9 May, 2017 (AFI/SAM).

ICAO strategic objectives:

A – Safety

B – Air navigation capacity and efficiency

1. Introduction

1.1 As follow-up to the AIDC interconnection implementation between adjacent AACs at regional and interregional level, the SAM/IG/18 meeting highlighted the approval of amendments to the *Guide for AIDC implementation through the interconnection of automated centres*, which can be downloaded from the ICAO SAM Office website, e-Document section http://www2010.icao.int/SAM/Pages/ES/eDocumentsDisplay_EN.aspx?area=CNS and the implementation of six AIDC interconnections between adjacent ACCS in Brazil.

2. Analysis

2.1 The following is a description of the progress made in the implementation of the AIDC interconnection in each of the States in the Region

Argentina

2.2 The AIDC between the ACC of Cordoba and the ACC of Ezeiza continues in the pre-operational phase. There have been problems with the ABI message in both centers and the company INDRA was consulted for a solution. In this sense, the operational phase would be implemented once this problem is solved estimating to be done during the second semester of 2017.

2.3 An AIDC training schedule is planned to carry out during the months of July, August and September 2017 addressed to the controllers of the ACCs of Comodoro Rivadavia, Mendoza and Resistencia. Once these trainings are completed, the pre operational phase of the AIDC between these centers shall be activated.

2.4 It is expected that by the end of the second semester of 2017, the national ACCs become in operational phase. The operational phase of the AIDC with the adjacent regional ACCs is expected to be in the period of 2018-2019.

2.5 AIDC tests at regional and interregional level would be carried out upon requests. In this respect, teleconference will be carried out for the respective coordination's.

Bolivia

2.6 By 2019, is expected that the automatization of the main ATS dependencies of Bolivia becomes operational (ACC of La Paz, New ACC of Cochabamba, APP of Santa Cruz and Trinidad). The automated systems to be installed are from the company Thales - model Top Sky. Once the automatization is in operation in ATS units, Bolivia will start the coordination's with the ACCs of the adjacent States for the AIDC test performance.

Brasil

2.7 The AIDC is in operational phase since mid-2016 between internal ACCs except Atlantic ACC. AIDC connection with Atlantic ACC is foreseen to be operational by the second semester 2017.

2.8 AIDC tests were carried out with the ACC of Asuncion, but the results were unsatisfactory. The tests will continue during the 2017. Coordination will be made between Brazil and Venezuela in order to exchange flight plans data and automated transfer using the messages of Document No. 4444. Likewise, in the second semester of 2017 the AIDC tests between the ACC of Manaus and the ACC of Lima will continue.

2.9 In 2017 Brazil published a national document for the operation of the AIDC: CIRCEA 100-75 - "Operação AIDC nos ATS".

Chile

2.10 The ATS controller's staff of the ACC of Iquique involved with the AIDC operations have been already trained and would be ready to perform the tests between the ACC of Iquique and the ACC of Lima. In this regard, Peru informed to the ICAO SAM Office (Letter No. MTC CORPAC S.A. GCA.GT.7.2.050.2017/04, dated March 10, 2017) that in view that in the ACC of Lima is being implemented the contract for updating the automated system by the company INDRA Sistema S.A., the AIDC tests between the ACC of Lima and the ACC of Iquique will be carried out from 19 to 23 June, 2017. The AIDC/3 Meeting considered the need of beginning the coordination's between Chile and Peru to elaborate a letter of operational agreement that includes the AIDC operations between the ACC of

Lima and the ACC of Iquique.

2.11 The AIDC between the ACC of Puerto Mont and the ACC of Punta Arena is in pre-operational phase since November 2016.

2.12 Provision of Chile to carry out AIDC tests between the ACC of Puerto Mont and the ACC of Punta Arenas with the ACC of Comodoro Rivadavia. The migration to the AIDC pre operational phase between the ACC of Iquique with the ACC of Cordoba will be done by the end of the second semester of 2017. The AIDC operations of the ACC of Santiago with the regional adjacent ACCs will be carried out once the software update of its automated system period 2018-2019 is installed.

Colombia

2.13 No progress has been presented since the AIDC/2 Meeting. The AIDC interconnections implemented at the national and intraregional level are still in a pre-operational phase. The amendment of the letter of agreement between the ACC of Bogotá and the ACC of Lima was signed with the inclusion of the AIDC procedure in November 2016.

Ecuador

2.14 The operational implementation of the AIDC between the ACC of Guayaquil and the APP of Quito has been given since February 2017, signing an amendment to the operational letter on February 1, 2017. There have been positive tests between the ACC of Guayaquil and CENAMER and coordination's to migrate to a pre-operational phase will continue. In relation to the operation of the AIDC between the ACC of Lima and the ACC of Guayaquil, operations in the operational phase were interrupted until the update of the automated system of the ACC of Lima is completed; scheduled for October 2017. By the end of 2017, is expected to count with the operation of the AIDC between the ACC of Guayaquil and the APP of Manta and Shell. In March 2017, the problems in the exchange of AIDC messages between the automated systems of Ecuador and Colombia were solved, after which the respective coordination's between the focal points of each country and ATM officials of the States for the establishment of a schedule of activities until the third quarter of this year and continuity of the pre - operational phase.

French Guyana

2.15 The AIDC implementation with the ACCs of the adjacent States is foreseen to take place in the period of 2017 – 2019.

Guyana

2.16 The AIDC implementation with the ACCs of the adjacent States is foreseen to take place in the period of 2017 – 2019.

Panama

2.17 In the list of requirements of the AIDC of Panama with the regional dependencies of ATS the implementation of the AIDC with the Rio Negro and the APP of Cali was included. The Panamanian Aeronautical Administration signed a technical support contract with the company Thales for the revision and updating of the of automated system software installed in the ACC of Panama which includes the solution to the AIDC problem (Freezing of the application by the accumulation of messages) as well as the operational technical training. This process would be completed by November 2017. By this date,

AIDC is expected to be in operational phase with all the adjacent ACCs.

Paraguay

2.18 Thanks to the support of the regional project RLA/06/901, during the week of November 28 to December 2, 2016, an AIDC workshop was held for the controllers involved in the ACC of Asunción. Training was provided for 26 (twenty-six) ATCOs and 2 (two) CNS Technicians for the correct use of AIDC as a coordination tool. The course was delivered by AIDC experts from Argentina and Peru. Also during the week of November 28, 2016, AIDC tests were conducted between the ACC of Asunción and the ACC of Resistencia. By the end of 2017 is expected to update the automated system software of the ACC of Asunción.

Peru

2.19 The activities of updating the automated system of the ACC of Lima have been initiated, which would be completed by October 2017.

2.20 Considering this updating process, Peru would proceed to carry out new AIDC tests with the following ACCs (Information reported through Letter No. MTC-CORPAC-S.A.-GCA.GT.7.2.050.2017/04 dated March 10, 2017):

AIDC Tests Bogotá from 12 to 16 June 2017
AIDC Tests Iquique from 19 to 23 June 2017
AIDC Tests Guayaquil from 26 to 30 June 2017

Suriname

2.21 The AIDC implementation with the ACCs of the adjacent States is foreseen to take place in the period of 2017 – 2019.

Uruguay

2.22 The AIDC implementation with the ACCs of the adjacent States is foreseen to take place in the period of 2017 – 2019.

Venezuela

2.23 The AIDC implementation with the ACCs of the adjacent States is foreseen to take place in the period of 2017 – 2019. Is expected to begin with the transfer of ATS messages using messages from Doc 444 between Manaus ACC and Maiquetia ACC by mid-2017.

AIDC interconnection requirements chart

2.24 Based on the information presented in paragraph 2.6, the Meeting proceeded to update the chart with the AIDC interconnection requirements in the SAM Region, its implementation status and expected for the period 2017-2019 which is presented as **Appendix B** of this Working Paper.

List of focal points

2.25 The Meeting also reviewed the list of AIDC focal points presented as **Appendix C** to this Working Paper.

AIDC interregional interconnections activities

2.26 Ecuador and Panama have carried out successful AIDC tests with CENAMER. At the same time, as follow-up to conclusion SAT/21-17 Implementation of AIDC, coordination has been start to begin tests between SAM and AFI Regions, specifically between Argentina (Ezeiza ACC) and South Africa (Johannesburg), and Brazil (Atlantic ACC) with Senegal (Dakar ACC) and South Africa (Johannesburg).

2.27 States from AFI and SAM Regions are using ICD (Interface Control Document) from ASIA/PAC Region; therefore there should be AIDC compatibility between the automated systems of ACCs. Tests have not started due to the AIDC in Atlantic ACC is not completed yet and the AFTN channel of CAFSAT in Argentina has been failing continuously. Tests are expected to resume by the second semester 2017.

2.28 In view of the activities carried out to date, those scheduled and approved for 2017, and those considered for implementation in the period 2017-2019, the Meeting updated the action plan for the AIDC interconnection implementation presented as **Appendix A** to this Agenda Item.

3. ***Suggested action***

3.1 The Meeting is invited to:

- a) Take note of the information presented herein; and
- b) review aspects described in Section 2 of this Working Paper and corresponding Appendixes.

APPENDIX A

(AIDC) GROUND-GROUND DATA INTERCONNECTION LEVEL REQUIREMENTS IN THE SAM REGION

ARGENTINA						
ACC	ACC ADJ	Flight plan				Comments
		Interconnection levels *				
		1 4444 Manual	2 4444 Auto	3 (OLDI)	4 (AIDC)	
CORDOBA (AUT. INDRA AIRCON2100) (2007)	IQUIQUE	XI			X	Positive AIDC tests - March 2016 As a result of the tests, the transmission speed has to be incremented from 2400 to 9600 bit/seg AIDC foreseen to be operational at the end of the second semester of 2018.
	LA PAZ	XI			X	AIDC foreseen for period 2017-2019
	EZEIZA	XI			XI	AIDC in pre-operational phase since December 2015. Operational phase foreseen by the first semester of 2017
	MENDOZA	XI			X	AIDC pre-operational phase by the second semester of 2017
	RESISTENCIA	XI			X	AIDC pre-operational phase by the second semester of 2017
RESISTENCIA (AUT. INDRA AIRCON2100) (May 2016)	ASUNCION	XI			X	Positive AIDC tests were conducted in 2015 between Ezeiza and Asuncion. Tests between Resistencia and Asuncion were conducted in the end of 2016. AIDC foreseen to be operational by the first semester of 2018.
	CORDOBA	XI			X	AIDC pre-operational by the second semester of 2017
	CURITIBA	XI			X	AIDC foreseen by the first semester of 2018
	EZEIZA	XI			X	AIDC pre-operational by the second semester of 2017
	MONTEVIDEO	XI			X	AIDC foreseen by the first semester of 2018

EZEIZA (AUT. INDRA AIRCON2100) (2007)	COMODORO RIVADAVIA	XI			X	AIDC pre-operational by the second semester of 2017
	MENDOZA	XI			X	AIDC pre-operational by the second semester of 2017
	PUERTO MONTT	XI			X	AIDC by the first semester of 2018
	CORDOBA	XI			XI	AIDC in pre-operational phase since December 2015. Operational phase foreseen by the second semester of 2017
	RESISTENCIA	XI			X	AIDC pre-operational by the second semester of 2017
	JOHANNESBURG	XI			X	AIDC tests foreseen by the first semester of 2017
	MONTEVIDEO	XI			X	AIDC foreseen by the first semester of 2018
MENDOZA (AUT INDRA AIRCON2100) (May 2016)	EZEIZA	XI			X	AIDC pre-operational by the first semester of 2017
	SANTIAGO	XI			X	AIDC foreseen for period 2017-2019
	CORDOBA	XI			X	AIDC pre-operational by the second semester of 2017
COMODORO RIVADAVIA (AUT INDRA AIRCON2100) (June 2016)	EZEIZA	XI			X	AIDC pre-operational by the first semester of 2017
	PUNTA ARENAS	XI			X	AIDC by the end of the second semester of 2017
	PUERTO MONTT	XI			X	AIDC by the end of the second semester of 2017

BRAZIL						
ACC	ACC ADJ	Flight plan				Comments
		Interconnection levels				
		1 4444 Manual	2 4444 Auto	3 (OLDI)	4 (AIDC)	
AMAZÓNICO (MANAUS) AUTO. SAGITARIO ATECH	BRASILIA	XI			XI	AIDC implemented June 2016
	BOGOTÁ	XI			X	AIDC operational foreseen by December 2017
	CAYENNE	XI			X	AIDC foreseen for period 2017-2019
	CURITIBA	XI			XI	AIDC implemented July 2016
	GEORGETOWN	XI			X	AIDC foreseen for period 2017-2019

	LA PAZ	XI			X	AIDC foreseen for period 2018-2019
	LIMA	XI			X	AIDC foreseen for December 2017
	MAIQUETIA	XI	X		X	AIDC foreseen for period 2018-2019
	PARAMARIBO	XI			X	AIDC foreseen for period 2017-2019
	RECIFE	XI			X	AIDC implemented since 2 May 2016
	ATLÂNTICO	XI			X	July 2017
BRASILIA AUTO. SAGITARIO ATECH	AMAZÔNICO	XI			XI	AIDC implemented June 2016
	CURITIBA	XI			XI	AIDC implemented July 2016
	RECIFE	XI			XI	AIDC implemented June 2016
CURITIBA AUTO. SAGITARIO ATECH	AMAZONICO	XI			XI	AIDC implemented July 2016
	ASUNCION	XI			X	AIDC foreseen for December 2017
	BRASÍLIA	XI			Xi	AIDC implemented July 2016
	LA PAZ	XI			X	AIDC foreseen for period 2018-2019
	MONTEVIDEO	XI			X	AIDC foreseen for the first semester of 2018
	RECIFE	XI			XI	AIDC implemented July 2016
	RESISTÊNCIA	XI			X	AIDC foreseen by the first semester of 2018
	ATLÂNTICO	XI			X	July 2017
RECIFE AUTO. SAGITARIO ATECH	AMAZÔNICO	XI			XI	AIDC Implemented on 2 May 2016
	BRASÍLIA	XI			XI	AIDC implemented June 2016
	CURITIBA	XI			XI	AIDC implemented July 2016
	ATLÂNTICO	XI			X	July 2017
ATLÂNTICO AUTO. SAGITARIO ATECH	AMAZÔNICO	XI			X	July 2017
	CURITIBA	XI			X	July 2017
	DAKAR	XI			X	AIDC TBD
	JOHANNESBURG	XI			X	AIDC TBD
	LUANDA	XI			X	AIDC TBD
	MONTEVIDEO	XI			X	AIDC foreseen for period 2017-2019
	RECIFE	XI			X	July 2017
	CAYENNE	XI			X	AIDC foreseen for period 2017-2019

BOLIVIA						
ACC	ACC ADJ	Flight plan				Comments
		Interconnection levels				
		1 4444 Manual	2 4444 Auto	3 (OLDI)	4 (AIDC)	
LA PAZ (MANUAL)	AMAZÔNICO	XI			X	AIDC foreseen for period 2018-2019
	ASUNCION	XI			X	AIDC foreseen for period 2018-2019
	CURITIBA	XI			X	AIDC foreseen for period 2018-2019
	CORDOBA	XI			X	AIDC foreseen for period 2018-2019
	LIMA	XI			X	AIDC foreseen for period 2018-2019
	IQUIQUE	XI			X	AIDC foreseen for period 2018-2019

CHILE						
ACC	ACC ADJ	Flight plan				Comments
		Interconnection levels				
		1 4444 Manual	2 4444 Auto	3 (OLDI)	4 (AIDC)	
SANTIAGO (AUTO THALES TOPSKY)	IQUIQUE	XI			X	AIDC foreseen for period 2018-2019
	LIMA	XI			X	AIDC foreseen for period 2018-2019
	MENDOZA	XI			X	AIDC foreseen for period 2018-2019
	PUERTO MONTT	XI			X	AIDC foreseen for period 2018-2019
IQUIQUE (AUTO INDRA AIRCON 2100)	CORDOBA	XI			X	Positive AIDC tests - March 2016. Tests results indicate the requirement of increase transmission speed from 2400 to 9600 bit/sec. AIDC operational foreseen by the first semester of 2018
	LA PAZ	XI			X	AIDC foreseen for period 2018-2019
	LIMA	XI			X	Positive AIDC tests conducted in February 2016. AIDC foreseen to be operational by the second semester of 2017

PUERTO MONTT (INDRA AUTOMATED)	SANTIAGO	XI			X	AIDC foreseen for period 2018-2019
	PUNTA ARENAS	XI			X	AIDC pre operational since November 2016.
	EZEIZA	XI			X	AIDC by the first semester of 2018
	COMODORO RIVADAVIA	XI			X	AIDC by the first semester of 2018
PUNTA ARENAS (INDRA AUTOMATED)	PUERTO MONTT	XI			X	AIDC pre operational since November 2016
	COMODORO RIVADAVIA	XI			X	AIDC by the first semester of 2018

COLOMBIA						
ACC	ACC ADJ	Flight plan				Comments
		Interconnection levels				
		1 4444 Manual	2 444 4 Auto	3 (OLDI)	4 (AIDC)	
BOGOTÁ (AUTO INDRA AIRCON 2100)	AMAZÔNICO	XI			X	AIDC foreseen to be operational for December 2017
	CENAMER	XI			X	AIDC foreseen for period 2017-2019
	GUAYAQUIL	XI			XI	Positive AIDC tests conducted AIDC in pre-operational phase (August 2015).
	LIMA	XI			XI	Positive AIDC tests conducted. AIDC pre-operational (August 2015) Amendment to the operational agreement including the AIDC signed in November 2016.
	MAIQUETIA	XI			X	AIDC foreseen for period 2018-2019
	PANAMA	XI			X	Positive AIDC tests conducted. AIDC foreseen to be operational by second semester 2017.
	BARRANQUIL LA	XI			XI	AIDC pre-operational (March 2016)
BARRANQUILLA (AUTO INDRA AIRCON 2100)	MAIQUETIA	XI			X	AIDC foreseen for period 2018-2019
	PANAMA	XI			X	Positive AIDC tests conducted. AIDC foreseen to be operational by second semester 2017.
	BOGOTA	XI			XI	AIDC pre-operational (March 2016)
	KINGSTON	XI			X	AIDC TBD

	CURAÇAO	XI			X	AIDC TBD
APP Rio Negro (AIRCON 2100)	PANAMA	XI			X	Tests on second semester 2017
APP Cali (AIRCON 2100)	PANAMA	XI			X	Tests on second semester 2017

ECUADOR						
ACC	ACC ADJ	Flight plan				Comments
		Interconnection levels				
		1 4444 Manual	2 444 4 Auto	3 (OLDI)	4 (AIDC)	
GUAYAQUIL AUTO INDRA AIRCON 2100	BOGOTA	XI			XI	Positive AIDC tests conducted. AIDC pre-operational (August 2015)
	LIMA				XI	AIDC operational implementation (31 March 2016)
	CENAMER	XI			X	Positive AIDC tests conducted. AIDC foreseen for period 2017- 2019

FRENCH GUIANA						
ACC	ACC ADJ	Flight plan				Comments
		Interconnection levels				
		1 4444 Manual	2 4444 Auto	3 (OLDI)	4 (AIDC)	
CAYENNE AUTO ADACEL AIDC not installed	AMAZÔNICO	XI			X	AIDC foreseen for period 2017-2019
	PARAMARIBO	XI			X	AIDC foreseen for period 2017-2019
	PIARCO	XI			X	AIDC foreseen for period 2017-2019
	DAKAR	XI			X	AIDC foreseen for period 2017-2019
	ATLANTICO	XI			X	AIDC foreseen for period 2017-2019

GUYANA						
ACC	ACC ADJ	Flight plan				Comments
		Interconnection levels				
		1 4444 Manual	2 4444 Auto	3 (OLDI)	4 (AIDC)	
GEORGETOWN AUTO INTELCAN AIDC not installed	AMAZONICO	XI			X	AIDC foreseen for period 2017-2019
	PIARCO	XI			X	AIDC foreseen for period 2017-2019
	MAIQUETIA	XI			X	AIDC foreseen for period 2017-2019
	PARAMARIBO	XI			X	AIDC foreseen for period 2017-2019

PANAMA						
ACC	ACC ADJ	Flight plan				Comments
		Interconnection levels				
		1 4444 Manual	2 444 4 Auto o	3 (OLDI)	4 (AIDC)	
PANAMA (AUTO THALES)	BOGOTA	XI			X	Positive AIDC tests conducted. AIDC foreseen to be operational by second semester 2017.
	BARRANQUILLA	XI			X	Positive AIDC tests conducted. AIDC foreseen to be operational by second semester 2017.
	CENAMER	XI			X	Positive AIDC tests conducted. Pre operational phase. AIDC foreseen to be operational by the second semester 2017
	APP CALI	XI			X	Tests on second semester 2017.
	APP RIO NEGRO	XI			X	Tests on second semester 2017.

PARAGUAY						
ACC	ACC ADJ	Flight plan				Comments
		Interconnection levels				
		1	2	3	4	

		4444 Manual	4444 Auto	(OLDI)	(AIDC)	
ASUNCION AUTO AIRCON 2100 INDRA	CURITIBA	XI			X	AIDC foreseen for December 2017
	LA PAZ	XI			X	AIDC foreseen for period 2018-2019
	RESISTENCIA	XI			X	Positive AIDC tests conducted in 2015 between Ezeiza and Asuncion. Tests between Resistencia and Asuncion were held by the end of 2016. AIDC foreseen to be operational by the first semester 2018.

PERU						
ACC	ACC ADJ	Flight plan				Comments
		Interconnection levels				
		1 4444 Manual	2 4444 Auto	3 (OLDI)	4 (AIDC)	
LIMA AUTO AIRCON 2100 INDRA	AMAZONICO	XI			X	AIDC foreseen to be operational by December 2017
	BOGOTA	XI			XI	Positive AIDC tests conducted. AIDC pre-operational phase (August 2015). Amendment to the operational agreement including the AIDC signed in November 2016.
	SANTIAGO	XI			X	AIDC foreseen for period 2018-2019
	IQUIQUE	XI			X	Positive AIDC tests conducted in February 2016. AIDC foreseen to be operational by the second semester of 2017.
	GUAYAQUIL	XI			XI	AIDC operational (31 March 2016)
	LA PAZ	XI			X	AIDC foreseen for period 2018-2019

SURINAME						
ACC	ACC ADJ	Flight plan				Comments
		Interconnection levels				
		1 4444 Manual	2 4444 Auto	3 (OLDI)	4 (AIDC)	
PARAMARIBO (AUTO INTELCAN) AIDC not installed	AMAZÓNICO	XI			X	AIDC foreseen for period 2017-2019
	GEORGETOWN	XI			X	AIDC foreseen for period 2017-2019
	PIARCO	XI			X	AIDC foreseen for period 2017-2019
	CAYENNE	XI			X	AIDC foreseen for period 2017-2019

URUGUAY						
ACC	ACC ADJ	Flight plan				Comments
		Interconnection levels				
		1 4444 Manual	2 4444 Auto	3 (OLDI)	4 (AIDC)	
MONTEVIDEO (AUTO INDRA AIRCON2100)	CURITIBA	XI			X	AIDC foreseen by first semester 2018
	EZEIZA	XI			X	AIDC foreseen by the first semester 201
	RESISTENCIA	XI			X	AIDC foreseen by first semester 2018
	ATLANTICO	XI			X	AIDC foreseen for period 2017-2019
	JOHANNESBURG	X			X	AIDC TBD

VENEZUELA						
ACC	ACC ADJ	Flight plan				Comments
		Interconnection levels				
		1 4444 Manual	2 4444 Auto	3 (OLDI)	4 (AIDC)	
MAIQUETIA (AUTO ATECH X4000) AIDC not installed	AMAZONICO	XI	XI		X	AIDC foreseen for period 2018-2019
	BOGOTA	XI			X	AIDC foreseen for period 2018-2019
	BARRANQUILLA	XI			X	AIDC foreseen for period 2018-2019
	PIARCO	XI			X	AIDC TBD
	CAYENNE	XI			X	AIDC foreseen for period 2018-2019
	CURAZAO	XI			X	AIDC TBD
	SAN JUAN	XI			X	AIDC TBD

* X PLANNED

*XI IMPLEMENTED AND IN PRE-OPERATIONAL OR OPERATIONAL PHASE

APPENDIX B

**NATIONAL FOCAL POINTS/PUNTOS FOCALES NACIONALES
IMPLEMENTATION OF INTERCONNECTION OF AUTOMATED SYSTEMS/IMPLANTACIÓN INTERCONEXIÓN SISTEMAS
AUTOMATIZADOS**

STATE/ ESTADO	ADMINISTRATION/ ADMINISTRACIÓN	NAME/ NOMBRE	POST/ CARGO	TELEPHONE/ TELEFONO	E-MAIL
ARGENTINA	EANA	Javier Schenk	Gerente CNS EANA	(549 11) 5848 6936	Jschenk@eana.com.ar
		Oswaldo Oscar Godoy	Jefe ANS Subregional Ezeiza	Cel (54911) 28836444 5411 44802309	ogodoy@eana.com.ar
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BOLIVIA	DGAC	Jaime Yuri Alvarez Miranda	Jefe Unidad CNS	Tel: +5912 2444450 int. 2651	jalvarez@dgac.gob.bo
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COLOMBIA	UAEAC	Harlen Mejía	Jefe de Aeronavegación		harlen.mejia@aerocivil.gov.co
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STATE/ ESTADO	ADMINISTRATION/ ADMINISTRACIÓN	NAME/ NOMBRE	POST/ CARGO	TELEPHONE/ TELEFONO	E-MAIL
		Pedro Alejandro Velasco	Jefe Grupo de Vigilancia Aeronáutica	(57) 317656-7203	pedro.velasco@aerocivil.gov.co
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APPENDIX C

PLAN OF ACTIVITIES FOR THE IMPLEMENTATION OF THE AIDC INTERCONNECTION BETWEEN ADJACENTS ACCs

	Start	End	Responsible party	Status
1. Establishment of initial activities for completing the technical implementation of AIDC	10/10/2014	16/10/2014	ICAO	Completed
<p>1.1 Based on the results of AIDC tests conducted from February 2014 to June 2014, the technical documentation of the automated systems installed in the Region, and the SAM AIDC implementation guide, develop:</p> <p>1.1.1 Plan of activities to complete technical feasibility tests for AIDC interconnection between:</p> <p>Santiago ACC - Lima ACC Guayaquil ACC - Lima ACC Bogota ACC - Guayaquil ACC</p> <p>1.1.2 Contents of AIDC course for ATS controllers and programmers of AIDC automated system databases, to be conducted in Chile, Colombia, Ecuador and Peru.</p>	10/10/14	16/10/14	ICAO	<p>The initial plan of activities for AIDC implementation is scheduled for 2015. The plan of activities contemplates the conduction of AIDC courses for air traffic controllers working at ACCs and the operational implementation of AIDC between adjacent ACCs.</p> <p>These activities will be conducted in Chile, Colombia, Ecuador and Peru.</p> <p>Interconnection tests between the Lima and Bogota ACCs were added to the list shown in paragraph 1.1.1.</p>
2. Review of activities at the SAM/IG/14 meeting	09/10/14	13/11/14	ICAO and SAM/IG group	Completed
2.1 Submission of the plan of activities and contents of the AIDC course at the SAM/IG/14 meeting	09/10/14	13/11/14	ICAO	
2.2 Review and approval for submission at the Eighth Coordination Meeting of Project RLA/06/901	09/10/14	13/11/14	SAM/IG	

	Start	End	Responsible party	Status
3. Approval of activities by the RCC/8 meeting	25/02/15	27/02/15	RLA/06/901 member States	Completed The RCC/8 meeting held in Lima on 25-27 February 2015 approved the activities for initial implementation of AIDC interconnection in Chile, Colombia, Ecuador and Peru.
3.1 Submission of activities, with their respective cost, for approval.	25/02/15	27/02/15	RLA/06/901 member States	
4. Search and selection of experts	24/11/14	28/01/15	ICAO	Completed For the performance of the initial activities, three SAM experts with experience in database programming and operation of ACC automated systems were selected: Rubén Silva of Argentina, Mauricio Ferrer of Colombia, and Jorge Merino of Peru.
4.1 Search and selection of 4 experts from SAM States participating in Project RLA/06/901, with experience in the installation, operation and programming of AIDC databases, to perform the activities listed in item 1.	24/11/14	28/01/15	ICAO	
5. Missions to complete AIDC interconnection between States that started tests during the first semester of 2014	06/04/15	01/05/15	3 automation experts ICAO	Completed Missions were conducted for training purposes and to complete tests for AIDC interconnection and operation Chile 6/4 to 10/4/2015 Peru 13/4 to 17/4/2015 Ecuador 20/4 to 24/4/2015 Colombia 27/4 to 1/5/2015

	Start	End	Responsible party	Status
5.1 Mission to Santiago de Chile	13/04/15	17/04/15	3 automation experts ICAO	Completed Implementation of AIDC activities at the Santiago ACC <ul style="list-style-type: none"> • AIDC practical course • AIDC interconnection tests between: <i>Santiago ACC and Lima ACC</i>
5.1.1 Complete AIDC technical implementation between the Santiago and Lima ACCs	13/04/15	17/04/15	3 automation experts ICAO	Completed Two-way communication was established in the AIDC interconnection tests between the Thales Top sky system of the Santiago ACC and the INDRA Aircon 2100 of the Lima ACC. The operational tests did not have positive results due to the AIDC limitations in the Santiago ACC. The practical course on AIDC and database programming was conducted, providing training to 16 controllers of the Santiago ACC and 2 aeronautical technicians.
5.1.2 Conduct AIDC course for ATS personnel of the Santiago ACC	13/04/15	17/04/15		
5.2 Mission to Lima:	13/04/15	17/04/15	3 automation experts	Completed Implementation of AIDC activities in the Lima ACC <ul style="list-style-type: none"> • AIDC practical course • AIDC interconnection tests

	Start	End	Responsible party	Status
				between: <i>Lima ACC - Santiago ACC</i> <i>Lima ACC - Guayaquil ACC</i> <i>Lima ACC - Bogota ACC</i>
5.2.1 Conduct AIDC course for ATS personnel of the Lima ACC	13/04/15	17/04/15	3 Automation experts ICAO	Completed The practical course on AIDC and database programming was conducted, providing training to 44 controllers of the Lima ACC.
5.2.2 Complete AIDC tests between the Lima ACC and the Guayaquil ACC	13/04/15	17/04/15		Completed AIDC tests between the Lima and Guayaquil ACCs were successfully conducted.
5.2.3 Complete AIDC tests between the Lima ACC and the Bogota ACC	13/04/15	17/04/15		Completed AIDC tests between the Lima and Bogota ACCs were successfully conducted.
5.3 Mission to Guayaquil	20/04/15	24/04/15	3 Automation experts of the SAM Region	Completed Implementation of AIDC activities at the Guayaquil ACC <ul style="list-style-type: none"> • Practical course on AIDC • AIDC interconnection tests and pre-operational implementation: Guayaquil ACC - Lima ACC Guayaquil ACC- Bogota ACC

	Start	End	Responsible party	Status
5.3.1 Complete AIDC technical implementation between the Guayaquil ACC and the Lima ACC	20/04/15	24/04/15	3 automation experts of the SAM Region	Completed AIDC technical interconnection was completed, currently in the pre-operational phase.
5.3.2 Complete AIDC technical implementation between the Guayaquil ACC and the Bogota ACC	20/04/15	24/04/15		Completed AIDC technical interconnection was completed, currently in the pre-operational phase
5.3.3 Conduct AIDC course for ATS personnel of the Guayaquil ACC	20/04/15	24/04/15		Completed The practical course on AIDC and database programming was conducted, providing training to 31 controllers of the Guayaquil ACC.
5.4 <i>Mission to Bogota</i>	27/04/15	01/05/15	3 automation experts	Completed Implementation of AIDC activities in the Bogota ACC <ul style="list-style-type: none"> • Practical course on AIDC • AIDC interconnection tests and pre-operational implementation: <i>Guayaquil ACC - Lima ACC</i> <i>Guayaquil ACC - Bogota ACC</i>
5.4.1 Complete AIDC technical implementation between the Bogota ACC and the Guayaquil ACC	27/04/15	01/05/15	3 automation experts of the SAM Region	Completed The AIDC technical interconnection was completed, currently in pre-operational phase

	Start	End	Responsible party	Status
5.4.2 Complete AIDC technical implementation between the Bogota ACC and the Lima ACC	27/04/15	01/05/15		Completed The AIDC technical interconnection was completed, currently in pre-operational phase
6. First meeting of the AIDC operational implementation working group during the SAMIG/15 meeting	11/05/15	15/05/15	RLA/06/901 member States	Completed. As a result of AIDC technical implementation, the SAM/IG/15 established a group of activities to migrate from the pre-operational phase to the operational between the ACC Bogota, Guayaquil and Lima. Additionally the AIDC messages to be used were defined.
6.1 It is proposed that, as a matter of priority, the SAM/IG/15 meeting do the follow-up of AIDC implementation. Accordingly, the AIDC operational implementation working group will hold its first meeting.	11/05/15	15/05/15	RLA/06/901 member States	
7. AIDC operational implementation	18/05/15	31/12/17	Involved States	
7.1 Definition of the parameters of the AIDC database for the to AID operational interconnection between Colombia, Ecuador and Peru	25/05/15	29/05/15	Involved States	Completed.
7.2 Amend letter of operational agreement to include the AIDC for the coordination between the ACC Lima with AAC Bogota, ACC Bogota with ACC Guayaquil and ACC Lima with ACC Guayaquil	15/06/15	31/03/16	Involved States	Valid. Letter of operational agreement between the ACC Guayaquil and ACC Lima was amendent and signed. (Oct 2015). On Nov 2016, final review and sign of letter of operational agreement between ACC Lima and ACC Bogota was completed. Pending amendment of letter

	Start	End	Responsible party	Status						
				of agreement between ACC Bogota and ACC Guayaquil.						
7.3 Teleconferences to coordinate and follow-up the migration from the AIDC pre-operational phase to the operational for Colombia, Ecuador and Peru	June 2014	Monthly Teleconferences at the beginning of each month until end 2017 depending on the progress, teleconference will be conducted upon needs	Involved States ICAO	<p>Valid. Teleconferences are been carried out on monthly basis since June 2014. On 2016 teleconferences were conducted on:</p> <table border="0"> <tr> <td>19 January</td> <td>23 May</td> </tr> <tr> <td>19 February</td> <td>3 June</td> </tr> <tr> <td>18 March</td> <td>6 September</td> </tr> </table> <p>For 2017 teleconferences are foreseen for March, (made on 3 March) July, September and December.</p>	19 January	23 May	19 February	3 June	18 March	6 September
19 January	23 May									
19 February	3 June									
18 March	6 September									
7.4 Complete courses for the ACC Lima and Guayaquil, Bogotá ATS staff as well as staff ARO/AIS	18/05/15	29/02/16	Involved States	Completed.						
7.5 Preoperational and operational Implementation of AIDC Guayaquil ACC - Lima ACC Bogota ACC - Guayaquil ACC Lima ACC - Bogota ACC Lima ACC – Santiago ACC*	18/05/15	31/12/17	States involved	<p>Valid. Letter of operational agreement with corrections on AIDC between ACC Colombia, Ecuador, Panama and Peru were amended (October 2015).</p> <p>Letter of operational agreement between AAC Lima and Guayaquil with the inclusion of AIDC was signed</p>						

	Start	End	Responsible party	Status
				<p>on 23 October 2015. Letter came into force on 31 March 2016.</p> <p>Establishing of a pre-operational period completing the ATS staff training.</p> <p>Operational implementation. AIDC between ACC Lima - ACC Guayaquil in operational phase from August 3, 2015, became operative on 31 March 2016. AIDC operations interrupted on September 2016 due to AIRCON 2100 system problems in Lima ACC. Automated system of Lima is being updated, esteemed to be completed by the beginning of the second semester 2017.</p> <p>The AIDC between the ACC Bogota and the ACC Lima and ACC Guayaquil is in pre-operational phase since May, 2015.</p> <p>* The AIDC operational implementation between the ACC Lima and ACC Santiago has postponed in view of the delay in the modernization of</p>

	Start	End	Responsible party	Status
				the ACC Santiago automated Center (2017-2019).
8. Other AIDC implementations Bogota ACC - Panama ACC Ezeiza ACC - Montevideo ACC Resistencia ACC - Asunción ACC Curitiba ACC – Resistencia ACC Iquique ACC – Lima ACC Cordoba ACC – Iquique ACC Amazonico ACC – Bogota ACC Amazonico ACC – Lima ACC Asuncion ACC – Curitiba ACC	18/05/15	31/12/17	States involved	
8.1 Definition of parameters of the AIDC database for the operational interconnection of the AIDC		29/07/16	States involved	Valid Defined for AIDC between: Bogota ACC-Panama ACC, Iquique ACC-Cordoba ACC and Resistencia ACC- Asuncion ACC.
8.2 Amendment of letter of operational agreement to include the AIDC for coordination between ACCs.		31/12/17	States involved	Valid
8.3 Carry out teleconferences for coordination and follow-up to the migration from the AIDC pre-operational to operational fase		Monthly tele-conferences at the begining of each month until the end of 2017 Depending on the progress tele-	States involved ICAO	Valid Teleconferences conducted 19 January 23 May 19 February 3 June 18 March 6 September For 2017 teleconferences are foreseen for March, (made on 3 March) July, September and December.

	Start	End	Responsible party	Status
		conferences will be conducted upon need		
8.4 Practical courses addressed to the ATS AIS CNS personnel of the ACC involved, interconnection AIDC		30/11/16	States involved OACI	Completed AIDC Course (Panamá 22 -26 June) 2015 AIDC Course (Paraguay 28 November to 2 December 2016).
8.5 Conduction of AIDC interconnection test between adjacents ACCs		30/12/17	States involved	Valid Successful AIDC interconnection tests between Bogota and Panama. (June 2015). Tests will continue during the first semester 2017 in view of the improvement made in the automated system of Panama ACC. AIDC tests Iquique ACC and Lima ACC were successfully conducted on December 2015 and continued until October 2016. Tests will restart the second semester of 2017 with the Lima automated system update. AIDC tests Iquique ACC and Cordoba ACC were made in February 2016 with positive

	Start	End	Responsible party	Status
				<p>results but the ABI message. Tests will continue one end-2017 since Argentina reported that AIDC domestic operations will be completed first.</p> <p>AIDC tests Amazonico ACC and Lima ACC were conducted in March 2016 with problems with ABI messages at the beginning which were overcome by Atech. Tests will continue on second semester 2017.</p> <p>AIDC tests Ezeiza ACC and Montevideo ACC (first semester 2017).</p> <p>AIDC tests Asuncion ACC and Resistencia ACC were made during the week of 28 November 2016 and will restart at the end of 2017.</p> <p>AIDC tests Curitiba ACC and Resistencia ACC (end of the second semester 2017).</p> <p>AIDC tests Curitiba ACC and Asuncion ACC (second semester 2017).</p>

	Start	End	Responsible party	Status
				AIDC tests Bogota AAC and Amazonico ACC (Second semester 2017)
8.6 Implantation of pre-operational and operational AIDC		31/12/17	States involved	<p>Valid</p> <p>AIDC between Bogota ACC and Panama ACC is in pre-operational phase since October 2015. Operational phase foreseen by end of the second semester 2017.</p> <p>AIDC between Ezeiza ACC and Montevideo ACC in pre-operational phase foreseen by first semester 2018.</p> <p>AIDC between Asuncion ACC and Resistencia ACC in pre-operational phase foreseen by the second semester 2017 and operational by second semester 2018.</p> <p>AIDC between Iquique ACC and Lima ACC will be in pre-operational and operational phases on the second semester 2018.</p> <p>AIDC between Iquique ACC and Cordoba ACC will be in pre-operational and operational</p>

	Start	End	Responsible party	Status
				<p>phases by the second semester 2018.</p> <p>AIDC between Curitiba ACC and Resistencia ACC in pre-operational and operational phases by the first semester 2018.</p> <p>AIDC between Amazonico ACC and Lima pre-operationa October 2016, operational by Second Semester 2018.</p> <p>AIDC between Amazonico ACC and Bogota ACC foreseen operational by Second Semester 2017.</p> <p>Remaining interconnections foreseen pre-operational by first semester 2017 and operational by the second semester 2017.</p>
9. Workshop on implementation of ATM automation, ADS B, and multilateration	22/09/15	25/09/15	ICAO	<p>Concluded</p> <p>NAN/CAR/SAM workshop held in Panama (22-25 September 2015). The implementation of inter-regional AIDC interconnections was analysed at the workshop.</p>

	Start	End	Responsible party	Status
10. Second meeting of the AIDC operational implementation working group during SAMIG/16	19/10/15	23/10/15	ICAO	Concluded
10.1 It is proposed, as a matter of priority, the SAM/IG/16 meeting do the follow-up of AIDC implementation. Accordingly, the second meeting of the AIDC operational implementation working group will be held.	19/10/15	23/10/15	ICAO	Concluded Follow-up was made on the operational implementation and programming of activities for operational implementation in 2016.
11. AIDC Implementation meetings	01/01/17	31/12/19	Involved States ICAO	Valid
11.1 Implementation of 12 AIDC interconnections at inter-regional level and 9 interconnections distributed as follows: Colombia (3), Ecuador (1), Panama (1) and Venezuela (4).	01/01/17	31/12/19	Involved States ICAO	Valid
11.2 Inter-regional AIDC interconnections between SAM and AFI Regions: Argentina (1), Brazil (2), French Guiana (1) and Uruguay (1)	01/01/17	31/12/19	Involved States ICAO	Valid
12. Introduction of FF ICE concept Analysis of the application of B1-FICE Module in the Region: Increasing interoperability, efficiency and capability through FF ICE. First stage of application before exit.	24/04/17	01/01/19	SAM Region States and ICAO	Valid
13. Monitoring to the AIDC interconnection implementation	2015	2019	ICAO	
13.1 AIDC Implementation Meeting ✓ First AIDC Implementation Meeting ✓ Second AIDC Implementation Meeting ✓ Third AIDC Implementation Meeting	March 2016	September 2019	ICAO	Valid AIDC/1 (Lima, Peru, 28-30 March 2016) AIDC/2 (Lima, Peru, 21-23 September 2016) AIDC/3 (Lima, Peru, 24-26 April 2017) Approved by

	Start	End	Responsible party	Status
✓ Fourth AIDC Implementation Meeting ✓ Fifth AIDC Implementation Meeting				RCC/10 AIDC/4 (Lima, Peru, June 2018) AIDC/5 (Lima, Peru, September 2019)